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**west virginia** department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

December 04, 2013

**WELL WORK PERMIT**

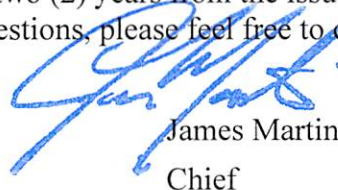
**Re-Work**

This permit, API Well Number: 47-9501850, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: E.T. PARKS NO. 9  
Farm Name: GLOVER, STEPHEN PAUL  
**API Well Number: 47-9501850**  
**Permit Type: Re-Work**  
Date Issued: 12/04/2013

**Promoting a healthy environment.**

## PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

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### CONDITIONS

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. If well work related activities require the use of water obtained by withdrawals from waters of this state in amounts that exceed two hundred ten thousand gallons during any thirty day period, the operator is required to consult, and adhere to, the guidance provided by DEP's Water Withdrawal Guidance Tool prior to any water withdrawals.

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
 WELL WORK PERMIT APPLICATION

- 1) Well Operator: HG Energy, LLC
- 2) Operator's Well Number: E. T. Parks 9 3) Elevation 1187'
- 4) Well Type: (a) Oil X or Gas \_\_\_\_\_  
 (b) If Gas: Production X Underground Storage \_\_\_\_\_
- 5) Proposed Target Formation(s): Gordon
- 6) Proposed Total Depth: 3,230' ft.
- 7) Approximate fresh water strata depths: 50'
- 8) Approximate salt water depths: 1550'
- 9) Approximate coal seam depths: 983'
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_\_\_ No X
- 11) Proposed Well Work: Stimulate producing well in the Gordon

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight Per Ft.	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor						
Fresh Water	7"	LS 8 rd	17#	450'	450'	Use Existing Casing
Coal						
Intermediate						
Production	4 1/2"	J-55	10.5#	3183'	3183'	Use Existing Casing
Tubing						
Liners						

Packers: Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Office of Oil and Gas Use Only

☐ Fee(s) Paid ☐ Well Work Permit ☐ Reclamation Fund ☐ WPCP  
☐ Plat ☐ WW-9 ☐ WW-2B ☐ Bond ☐ Agents

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 Office of Oil and Gas  
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 Department of Environmental Protection  
 Environmental Protection

*JP*

**State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas**

**Well Operator's Report of Well Work**

Farm name: GLOVER, STEPHEN

Operator Well No.: E.T. PARKS 9

LOCATION: Elevation: 1,187.00

Quadrangle: CENTERPOINT 7.5

District: MCELROY

County: TYLER

Latitude: 4,650 Feet south of 39 Deg 27 Min 30 Sec.

Longitude: 5,425 Feet west of 80 Deg 40 Min 00 Sec.

Company: EAST RESOURCES, INC.  
P.O. BOX 5519  
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: MIKE UNDERWOOD

Permit Issued: 07/27/05

Well work Commenced: 10/27/05

Well work Completed: 11/22/05

Verbal plugging

permission granted on:

Rotary ☒ Cable ☐ Rig

Total Depth (feet) 3230

Fresh water depths (ft) NA

Salt water depths (ft) 1550

Is coal being mined in area (Y/N) N

Coal Depths (ft): NA

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	450.00'	450.00'	115 sks
4 1/2"	3183.10'	3183.10'	150 sks

## OPEN FLOW DATA

## WATERFLOOD PRODUCER

Producing formation	Gordon	Pay zone depth (ft)	3047-3060
Gas: Initial open flow	* MCF/d	Oil: Initial open flow	* Bbl/d
Final open flow	* MCF/d	Final open flow	* Bbl/d
Time of open flow between initial and final tests		Hours	
Static rock pressure	psig (surface pressure)	after	Hours
Second producing formation		Pay zone depth (ft)	
Gas: Initial open flow	MCF/d	Oil: Initial open flow	Bbl/d
Final open flow	MCF/d	Final open flow	Bbl/d
Time of open flow between initial and final tests		Hours	
Static rock pressure	psig (surface pressure)	after	Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC

By: *Roger Wilson*

Date: 11/17/06

NOV 18 2006

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Department of  
Environmental Protection

Treatment :

Treated Gordon perforations with 250 gals 15% HCL, 340 bbls cross linked gel, and 19,200 # 30/50 sand

Well Log :

0	312	Sand and Shale
312	337	Sand
337	348	Shale
348	375	Sand
375	400	Shale
400	433	Sand
433	756	Shale
756	864	Sand
864	1038	Shale
1038	1064	Sand
1064	1500	Shale
1500	1553	Sand
1553	1651	Shale
1651	1708	Sand
1708	1830	Shale
1830	1848	Sand
1848	1858	Shale
1858	1905	Sand
1905	2216	Shale
2216	2320	Big Lime
2320	2470	Big Injun
2470	3030	Shale
3030	3046	Gordon Stray
3046	3063	Gordon
3063	3230	Shale
3230		TD

Page 1 of 4  
Form WW2-A  
(6/94)  
\_\_\_\_\_ Copy

1) Date: October 21, 2013  
2) Operator's Well Number  
E. T. Parks 9  
3) API Well No: 47 - 095 - 1850  
State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS**

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:  
(a) Name Stephen Paul Glover  
Address HC 62, Box 54  
Alvy, WV 26377  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Joe Taylor  
Address 1478 Claylick Road  
Ripley, WV 25271  
Telephone (304) - 380-7469

5) (a) Coal Operator:  
Name NA  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name NA  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name NA  
Address \_\_\_\_\_

**TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:**

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas **OR**  
X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 4 on the above-named parties, by:

\_\_\_\_\_ Personal Service (Affidavit attached)  
X Certified Mail (Postmarked postal receipt attached)  
\_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator HG Energy, LLC  
By: Diane C. White Diane C. White  
Its: Accountant  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone (304) 420-1119

Subscribed and sworn before me this 21 day of October, 2013  
\_\_\_\_\_  
Notary Public

My commission expires Nov. 12, 2018

Form WW-2A(1)  
(6/94)

Operator's Well No. E. T. Parks 9

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that --

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Mary M. Welch	Pennzoil Products Co.	1/8	312/116

Assignment, Conveyance and Bill of Sale dated December 28, 1998, from Pennzoil Company to Pennz Energy Exploration and Production, Wetzel County, Book 12, Page 177.

Certificate of Merger filed with the WV Secretary of State, December 31, 1999, whereby Pennz Energy Exploration and Production, successor in interest to; to Pennzoil Company, merged with Devon Energy Production Company, LP, Wetzel County, Book 12, Page 278.

Deed, Assignment and Bill of Sale dated June 1, 2000, from Devon Energy Production Company, LP to East Resources, Inc., recorded in Wetzel County, Book 370, Page 580.

Assignment, Conveyance and Bill of Sale, dated January 1, 2011, from East Resources, Inc., to HG Energy, LLC, Wetzel County, Book 118A, Page 253.

Upon information and belief, Operator's lease and/or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including the use of access roads, pipelines and utilities.

Upon information and belief, Operator's lease and/or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including the use of access roads, pipelines and utilities.

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

WV Division of Water and Waste Management  
WV Division of Natural Resources  
WV Division of Highways  
U.S. Army Corps of Engineers  
US Fish and Wildlife Service  
County Floodplain Coordinator

Well Operator: HG Energy, LLC

By: Diane C. White

Its: Accountant

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WV Department of  
Environmental Protection

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator HG Energy, LLC OP Code 494497948  
Watershed McIntyre Fork Quadrangle Centerpoint 7.5' 286  
Elevation 1187' County Tyler 05 District McElroy 05  
Description of anticipated Pit Waste: Fluids encountered while stimulating shallow well.  
Do you anticipate more than 5,000 bbls of water to complete the proposed well work? Yes      No X  
Will a synthetic liner be used in pit? Yes      If so, what mil? 20 Mil.  
Proposed Disposal Method For Treated Pit Wastes:  
X Land Application  
     Underground Injection (UIC Permit Number                     )  
     Reuse (at API Number                     )  
     Off Site Disposal (Supply Form WW-9 for disposal location)  
     Other (Explain                     )  
Drilling medium anticipated for this well? Air, fresh water, oil based, etc. NA  
- If oilbased, what type? Synthetic, petroleum, etc.                       
Additives to be used? Water, soap, KCl  
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in Pit  
- If left in pit and plan to solidify, what medium will be used? Cement, lime, sawdust Native soil, cement, lime  
- Landfill or offsite name/permit number?                     

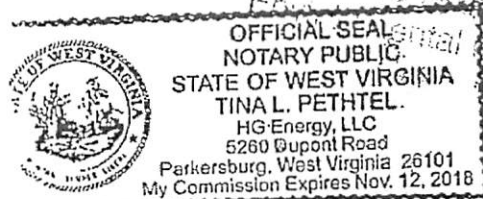
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Diane C White  
Company Official (Typed Name) Diane C. White  
Company Official Title Accountant

Subscribed and sworn before me this 29 day of October  
Tina L. Pethel Notary Public

My commission expires Nov. 12, 2018  
Form WW-9



Legend

Property Boundary

Road

Existing Fence

Planned Fence

Stream

Open Ditch

Rock

North

Buildings

Water Wells

Drill Site

Diversion

Spring

Wet Spot

Drain Pipe

Waterway

Cross Drain

Filter Strip

Pit: Cut Walls

Pit: Compacted  
Fill WallsArea of Land  
Application  
of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed Area I  
Approx. 0.2 Ac. Prevegetation pH                     

Area II  
Approx. 0.2 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5  
 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)  
 Mulch            Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

Attach:

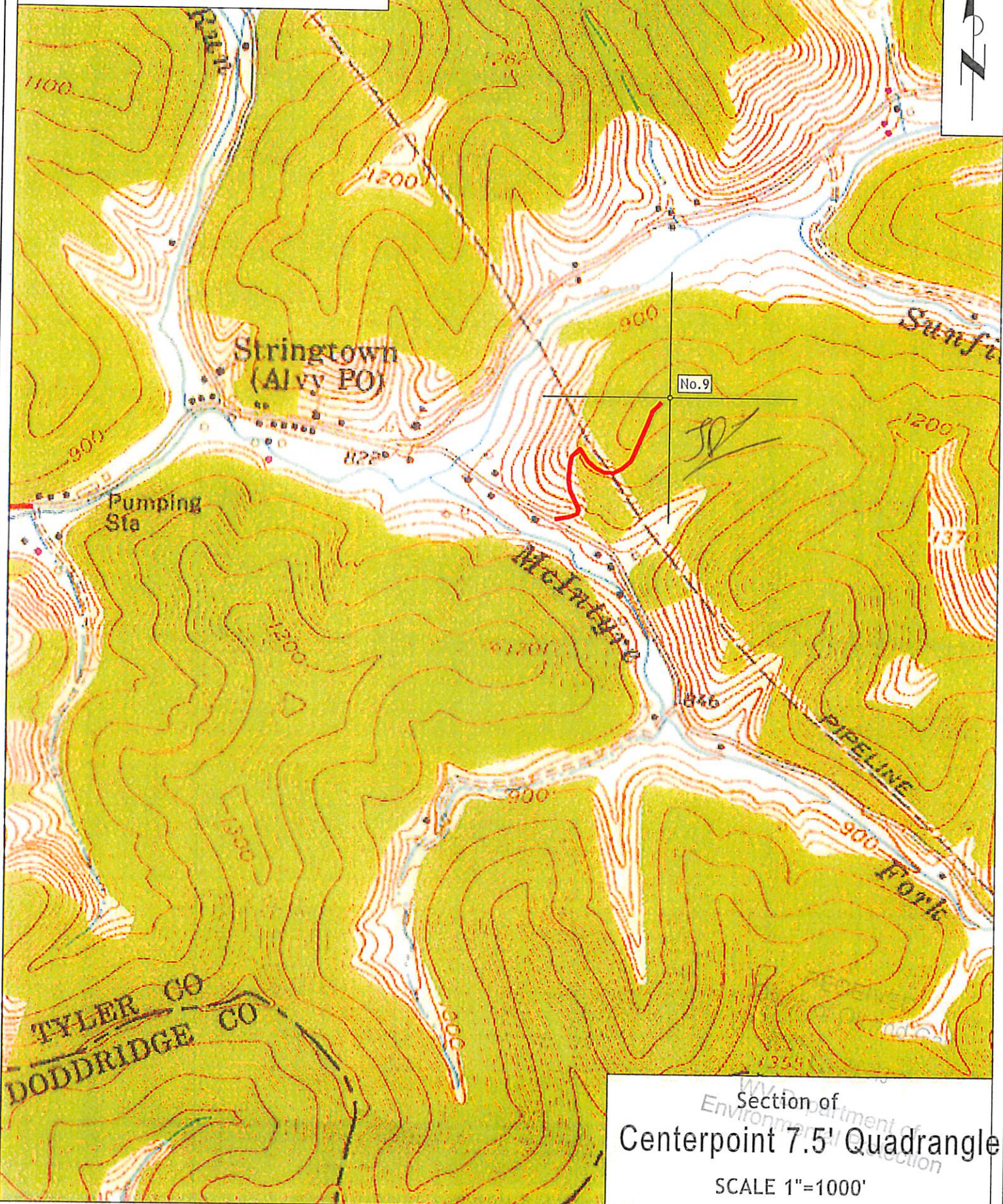
Drawing(s) of road, location, pit and proposed area for land application  
 Photocopied section of involved 7.5' topographic sheet.

Plan approved by: Title: InspectorDate: 11-14-13Field Reviewed? X Yes            No

 - Existing Culvert

SUBJECT WELL  
E.T. Parks No.9  
47-095-1850

L R O Y



Section of  
Centerpoint 7.5' Quadrangle

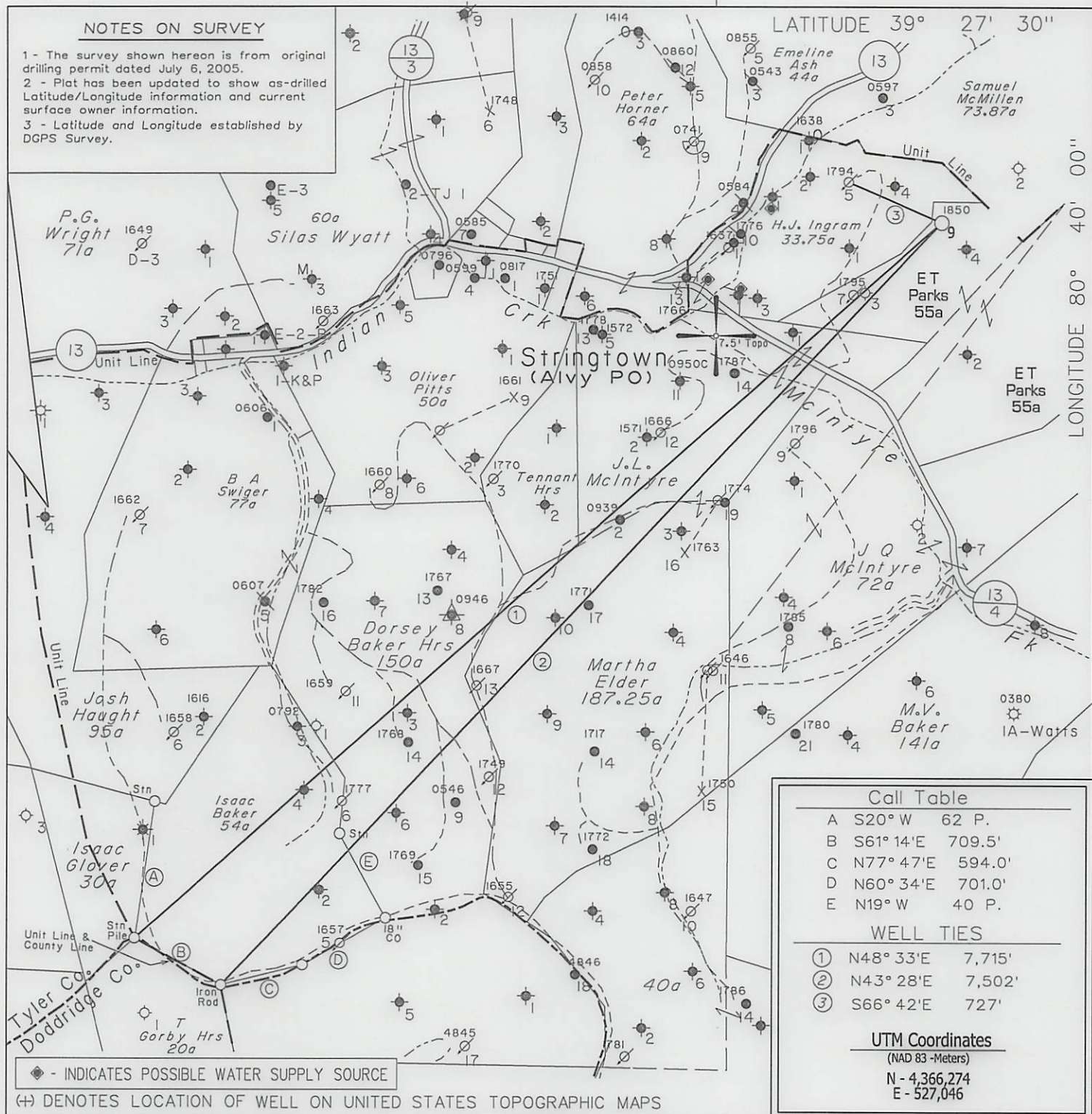
SCALE 1"=1000'

Longitude - 80° 41' 09.1"

5,420'

## NOTES ON SURVEY

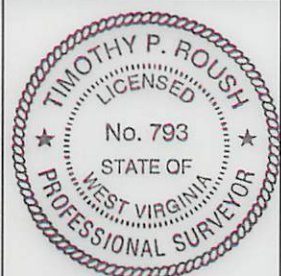
- 1 - The survey shown hereon is from original drilling permit dated July 6, 2005.
- 2 - Plat has been updated to show as-drilled Latitude/Longitude information and current surface owner information.
- 3 - Latitude and Longitude established by DGPS Survey.



FILE NO. 1040-41  
MAP NO. N S E W  
SCALE 1" = 1000'  
MINIMUM DEGREE OF  
ACCURACY 1 in 200  
PROVEN SOURCE OF  
ELEVATION DGPS Survey (Post -  
Processed Sub-Meter Mapping Grade)

I THE UNDERSIGNED, HEREBY CERTIFY THAT  
THIS PLAT IS CORRECT TO THE BEST OF MY  
KNOWLEDGE AND BELIEF AND SHOWS ALL THE  
INFORMATION REQUIRED BY LAW AND THE REGU-  
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-  
MENT OF MINES.

(SIGNED) TIMOTHY P. ROUSH PS 793



## WEST VIRGINIA

Division of Environmental Protection  
Office of Oil and Gas  
601 57th Street  
Charleston, West Virginia 25304



DATE October 15, 2013

FARM E.T. Parks No.9

API WELL NO.

47-095-01850 R

WELL TYPE: OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL ☐  
(IF "GAS") PRODUCTION ☐ STORAGE ☐ DEEP ☐ SHALLOW ☐

LOCATION: ELEVATION 1,187' WATERSHED McIntyre Fork

DISTRICT McElroy COUNTY Tyler

QUADRANGLE Centerpoint 7.5'

SURFACE OWNER Stephen Paul Glover ACREAGE 61.01 Ac.

OIL &amp; GAS ROYALTY OWNER HG Energy, LLC et al. LEASE ACREAGE 85 Ac.

LEASE NO. 99410-00

PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR  
STIMULATE ☒ PLUG OFF OLD FORMATION ☐ PERFORATE NEW  
FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG ☐

TARGET FORMATION Gordon ESTIMATED DEPTH 3,230'

WELL OPERATOR HG Energy, LLC DESIGNATED AGENT Mike Kirsch

ADDRESS 5260 Dupont Road ADDRESS 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

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Department of  
Environmental Protection

Latitude - 39° 26' 43.8"

West Virginia Division of Environmental Protection  
Office of Oil and Gas**NOTICE TO SURFACE OWNERS**

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

☒ Contractor Name Sturm Environmental Services  
☐ Well operator's private laboratory

Well Operator HG Energy, LLC  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone 304-420-1119

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

**No known Water Supply Sources are located within 2000' of proposed well.**

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